

sidered as complete, or worthy the name of a scientific collection, unless it contains the fossil animals and has them arranged on both the first and second of these plans.

The first is requisite to enable the zoologist to study the existing and the extinct animal, and without this advantage it is impossible that the natural method of animals, which is the true study of the scientific zoologist, can ever be discovered; on the other hand, it is only by the accurate comparison of the fossil remains of extinct animals with the skeletons and other hard parts of existing animals, that the proper characters of the fossil species can be discovered. It has always appeared to me that a zoological collection, not containing the fossil as well as the recent species, is as imperfect as a collection of recent vertebrated animals would be if it did not contain specimens of skulls and skeletons; and a collection of shells, sea-eggs and corals would be, if they were without examples of molluscous and radiated animals preserved in spirits.

The second plan, that of arranging a second series of the fossils when they have been well determined by comparison with the existing species, in series according to the strata in which they are found, is of the same importance to the zoologist as the geographical arrangement of the existing species, and of the utmost importance to the geologist, as affording him one of the best characters yet discovered for identifying the strata of the earth's surface. There are several private collections of fossils in this country where this system of arrangement has been carried out in a limited manner, that is to say, they are chiefly confined to the fossils of this country, or of some other special locality; but I have never seen any collection where it has been followed to a great extent; and I am convinced that the formation of such a collection, combining together the fossils of each stratum or bed from the various parts of the world, would have a most important effect on the progress of geological science, and at the same time bring together facts of the greatest value to the scientific zoologist who is studying the development and natural arrangement of organized beings. The third plan does not afford the facilities required by either the zoologist or the geologist, and is of as little use as a collection of the kind can be.

EARLY NOTICES OF THE ROYAL MENAGERIES IN LONDON.

THE interest which has been excited by the arrival of the Hippopotamus and his keepers induces us to give insertion to the following curious notice, from a record of the reign of Edw. III. in the year 1364; together with a note on the subject with which we have been favoured by Prof. Owen, and some notices of the Royal Menageries, and animals mentioned by our earlier historians.

“Les Archives de Guild-Hall offrent des renseignements si variés, que quelques-uns intéressent même les Sciences Naturelles; ainsi on y trouve, à la date du 4 Novembre 1364, un acte intitulé *Breve pro bestia de terra Egypti, vocata Oure*. Le roi écrivait au maire en faveur de son animal (*quemdam bestiam nostram*). Il avait appris que les habitants de Londres formaient le projet de maltraiter les

deux citoyens auxquels la garde de cet animal extraordinaire avait été confiée, et de tuer la bête elle-même (*dictam bestiam atrociter interficiendam*). Il lui mandait en conséquence de prendre toutes les mesures nécessaires pour défendre la bête et ses gardiens, désormais sous sa protection spéciale*. Les rois d'Angleterre entretenaient dès lors une ménagerie à la Tour de Londres, ainsi qu'on en trouve la preuve dans les actes publiés par les soins de la commission des archives d'Angleterre ; mais cet *oure*, dont le nom ne se rencontre point dans les nomenclatures des animaux connus aux moyen âge, était probablement une bête extraordinaire gardée à part dans la ville, et à l'existence de laquelle s'étaient attachées quelques idées superstitieuses†.

“ Royal College of Surgeons, London, August 27, 1851.

“ MY DEAR SIR,—From the circumstance of the ‘*Bestia de terra Egypti, vocata Oure,*’ requiring two keepers, and being so formidable as to alarm the citizens and lead to projects for destroying it, it must have been some large and formidable species. From Egypt might be derived the following Mammals suiting that description:—*2-horned Rhinoceros, Hippopotamus, Elephant, Giraffe, Lion, Syrian Bear*. The Elephant and Lion would be known and called by their proper names: the *Ursus Syriacus* is not a very large or formidable species: the Hippopotamus would require water in quantity sufficient for immersion. As to the Giraffe, this is so gentle a creature that one can hardly suppose it should have excited any enmity or alarm in the breasts of the citizens. Perhaps the Rhinoceros would be the most likely guess, if it is worth hazarding one on grounds so slender as those contained in the interesting extract published by M. Delpit. There is also the ‘*Crocodile.*’

“ Believe me, dear Sir, sincerely yours,

“ RICHARD OWEN.”

“ *Richard Taylor, Esq., Sec. L.S.*”

The celebrated physician Johannes Caius, in the letter which he addressed to his intimate friend Gesner, in the reign of Elizabeth, gives several particulars relative to the royal menagerie of wild beasts in the Tower of London: “*Leones cicurari possunt—in arce Londinensi leones custodum suorum oscula excipiunt, contactum admittunt et colludunt. Ipse vidi. Ista animalia [Unciæ] tam ferocia sunt, ut custos, cum primo vellet de loco in locum movere, cogeatur fuste in caput acto (ut aiunt) semimortua reddere, atque ita in capsam ligneam ad hoc factam, et respirationis gratia perforatam reponere, atque ita de loco in locum tuto transportare. Post horam reviviscabant tamen hæc, ut cati, non nisi extremis injuriis obnoxia morti. Itidem fecit custos cum è capsâ exeruit. Jam vero novas rationes invenerunt reponendi et eximendi, trahendo ea in capsam fune, et capsam eis admovendo conto. Fœminam jamdudum ira sustulit: parvi canis*

* Reg. G. fol. 140.

† Collection générale des Documents Français qui se trouvent en Angleterre ; par Jules Delpit, 1847. In publishing this extensive and very curious Collection, M. Delpit observes, “*C'est certainement une grande gloire pour la commune de Londres de posséder des archives plus complètes que celles d'aucune autre ville.*”

consuetudine mansuescit mas, adeo ut resupinatus complectatur canem pedibus et colludat, ita ut nec dente lædat nec ungue.”

Caius has a chapter *De Cornibus Cervi Palmati*, of which he had seen and figured a specimen in the monastery at Kenilworth in Warwickshire:—another chapter, also, on the Bonasus, whose skull and ribs were then preserved in the chapel of Guy of Warwick. In this he also mentions the Wild Cattle of our forests.

Notices of the Crocodile by the English Crusaders.

“*De Cocodrillis, &c.*—Cocodrillos apud *Damietam* invenimus et interfecimus: est autem bestia crudelis, homines et jumenta devorans, apertis oculis solo visu ova sua fovet: exclusi pulli statim fugiunt parentem quasi hostem, quos enim rapere potest in momento glutit et devorat.”

“*Ægyptii* vero honoraverunt Prophetam, sepelientes eum juxta tumulum Regum, memores beneficiorum quæ præstiterat *Ægypto*, oratione enim sua fugaverat bestias aquarum, quas Græci *Cocodrillos* appellant.”—*Historia Captivitas Damietæ*: apud Gale, *Historiæ Anglicanæ Scriptores* XV. vol. ii. p. 452.

They are called *Cocodryll* in Trevisa's Chronicle.

RICHARD TAYLOR.

A Monograph of Macrochisma, a genus of Gasteropodous Mollusca belonging to the family Fissurellidæ. By ARTHUR ADAMS, R.N., F.L.S.

MACROCHISMA, Swainson.

Animal? Shell elongated, clypeiform, radiately ribbed, extremities elevated; foramen very large, elongated, placed near the hind part, with a groove posteriorly; the hind margin sinuated.

1. MACROCHISMA MAXIMA, A. Adams. *M. testâ oblongâ, costis parum elevatis subrugosis, striisque concentricis obsolete ornatis, fusco radiatim maculatâ, dorso elevatâ, lateribus planulatâ, extremitate anticâ rotundatâ; posticâ elevatâ, subtruncatâ; foramen dilatatum, posticè excavatum.* Hab. —?

2. MACROCHISMA DILATATA, A. Adams. *M. testâ ovato-oblongâ, radiatim costatâ, rubrâ, albo variegatâ, utrinque rotundatâ, lateribus dilatatis; foramen oblongum, in medio angustatum.* Hab. —?

3. MACROCHISMA HIATULA, Swainson, *Manual of Malacology*, p. 356.

Fissurella macrochisma, Sow.

M. testâ ovato-oblongâ, radiatim costellatâ, fuscâ, subdepressâ, lateribus concavis, utrinque rotundatâ; foramen magnum, oblongum, posticè dilatatum, extremitate posticâ valdè elevatâ; margine vix sinuato. Hab. —?

4. MACROCHISMA COMPRESSA, A. Adams. *M. testâ angustè oblongâ, albidd, roseo radiatim pictâ, costellis granulosis striisque concentricis decussatâ, utrinque rotundatâ, dorso convexâ, lateribus compressis, in medio inflexis, extremitate posticâ valdè elevatâ; foramen magnum, lanceolatum, posticè dilatatum.*

Hab. —?